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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,866	09/19/2006	Herve Bercovier	27637U	2826

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THE NATH LAW GROUP  
112 South West Street  
Alexandria, VA 22314

EXAMINER
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DEVI, SARVAMANGALA J N

ART UNIT	PAPER NUMBER
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1645

MAIL DATE	DELIVERY MODE
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09/16/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/589,866

Applicant(s)

BERCOVIER ET AL.

Examiner

S. Devi, Ph.D.

Art Unit

1645

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 66-100 is/are pending in the application.
- 4a) Of the above claim(s) 78-80 and 92-100 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 66-77 and 81-91 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### **Preliminary Amendments**

- 1)** Acknowledgment is made of Applicants' preliminary amendments filed 08/18/06 and 11/07/08.

### **Election**

- 2)** Acknowledgment is made of Applicants' election filed 05/12/09 in response to the written lack of unity and/or species election requirement mailed 02/25/09. Applicants have elected invention I, claims 66-77 and 81-91, and the SEQ ID NO: 1 peptide species and the 2H1 anti-glucuronoxylomannan mAb species. Because Applicants did not distinctly and specifically point out the supposed errors in the lack of unity, the election has been treated as an election without traverse (M.P.E.P § 818.03(a)).

### **Status of Claims**

- 3)** Claims 1-65 have been canceled via the amendment filed 08/18/06.  
New claims 66-100 have been added via the amendment filed 08/18/06.  
Claims 66-100 are under prosecution.  
Claims 78-80 and 92-100 are currently withdrawn from consideration as being directed to non-elected species. See 37 C.F.R. 1.142(b) and M.P.E.P § 821.03.  
Claims 66-77 and 81-91 are under examination. A First Action on the Merits has been issued on these claims.

### **Sequence Listing**

- 4)** Acknowledgment is made of Applicants' sequence listing which has been entered on 12/08/08.

### **Priority**

- 5)** The instant application is a national stage 371 application of PCT/IL05/00199, filed 02/17/2005 and claims priority to the provisional applications 60/545,510 filed 02/19/2004 and 60/582,221 filed 06/24/2004.

### **Objection(s) to Specification**

- 6)** The instant specification is objected to for the following reasons:
- (a) The first paragraph of the instant specification lacks the priority information.
  - (b) The pages 10 and 31 of the specification recite amino acid sequences that are longer than four amino acids in length. Yet these amino acid sequences are not identified by specific SEQ ID numbers as required under 37 C.F.R. 1.821 through 1.825. Any sequences recited in the instant specification, which are encompassed by the definitions for nucleotide and/or amino acid sequences as set forth in 37 C.F.R. 1.821(a)(1) and (a)(2) must comply with the requirements of 37 C.F.R. 1.821 through 1.825. Note that branched sequences are specifically excluded from this definition.

APPLICANT MUST COMPLY WITH THE SEQUENCE RULES WITHIN THE SAME TIME PERIOD AS IS GIVEN FOR RESPONSE TO THIS ACTION, 37 C.F.R. 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 C.F.R. 1.821(g).

Although Applicants have attempted to correct the specification via the amendment filed 11/07/08, this amendment has not been entered, since it does not refer to the paragraphs to be replaced by specific page and line numbers. Note that the originally filed specification is not identified by paragraph numbers. Proper amendment to the specification is required.

### **Double Patenting Rejection(s)**

- 7)** The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970) and *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 C.F.R. 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 C.F.R. 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 C.F.R. 3.73(b).

**8)** Claims 82, 83, 90 and 91 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 36 and 35 of the co-pending application 11630115. Although the conflicting claims are not identical, they are not patentably distinct from each other, because claims 36 and 35 of the co-pending application are drawn to a pharmaceutical composition comprising a peptide having the sequence, ISLTEWSMWYRH. This peptide sequence is identical to the instantly recited peptide of SEQ ID NO: 1 which is contained in the instantly claimed vaccine composition.

This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

### **Rejection(s) under 35 U.S.C. § 101**

**9)** 35 U.S.C. § 101 states:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this cycle.

**10)** Claims 66, 82 and the claims dependent therefrom are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claims 66 and 82 as written, do not sufficiently distinguish over a peptide, or a composition comprising the same, as it exists naturally in the natural environment, because the claims do not particularly point out any non-naturally occurring differences between the claimed product and the naturally occurring product. The claimed product and the composition read on the naturally occurring peptide or peptide compositions being capable of binding to ManLAM binding antibodies. In the absence of the hand of man, the naturally occurring products are considered non-statutory subject matter. See *Diamond v. Chakrabarty*, 447 U.S. 303, 206 USPQ 193 (1980). The claim should be amended to indicate the hand of the inventor, e.g., by insertion

of the term 'isolated' or 'purified' or 'isolated and purified' in reciting the peptide, if descriptive support for the same exists in the instant specification. See MPEP 2105.

### **Rejection(s) under 35 U.S.C. § 112, Second Paragraph**

**11)** The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude one or more claims particularly pointing out and distinctly claiming the subject matter which the Applicant regards as his/her invention.

**12)** Claims 66-77 and 81-91 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

(a) Claims 66, 81 and 82 are indefinite and confusing in the limitation 'An amino acid molecule comprising a peptide', because it is unclear how a peptide can be comprised within 'an amino acid' molecule as opposed to amino acids being comprised within a peptide. Clarification is requested.

(b) Claims 66, 81 and 82 are indefinite in the use of the abbreviated claim language 'ManLAM'. It is unclear what does the term stand for. It is suggested that the abbreviation be recited as a full terminology at first occurrence, with its abbreviated recitation retained in parentheses.

(c) Claim 81 is indefinite in the limitation: 'capable of eliciting production of ManLAM binding antibodies', because it is unclear in whom is the recited peptide is capable of eliciting the production of ManLAM binding antibodies.

(d) Claims 76, 77, 90 and 91 are vague, indefinite and confusing in the limitation: 'immunologic modifications thereof' or 'immunogenic modification thereof', because it is unclear how the former modification differs from the latter.

(e) Claims 73 and 87 are vague, indefinite and confusing in the limitation: 'conservative substitutions thereof' [Emphasis added]. Does it mean that the recited single aromatic amino acid 'residue' in the peptide is to be modified with more than one conservative amino acid 'substitutions'? Clarification is requested.

(f) Analogous rejection and criticism apply to claims 76 and 91 with regard to the plural limitation 'immunologic modifications'.

(g) Claims 67-77 and 83-91, which depend directly or indirectly from claim 66 or 82, are also rejected as being indefinite because of the indefiniteness identified above in the base claim.

### **Rejection(s) under 35 U.S.C. § 102**

**13)** The following is a quotation of the appropriate paragraph(s) of 35 U.S.C. § 102 that form the basis for the rejection(s) under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

**14)** Claims 66-76 and 82-90 are rejected under 35 U.S.C. § 102(e)(2) as being anticipated by Pompejus *et al.* (US 7,273,721, filed 6/25/1999) as evidenced by Harlow *et al.* (*In: Antibodies: A Laboratory Manual*. Cold Spring Harbor Laboratory, Chapter 5, page 76, 1988).

It is noted that ‘a peptide’ recited in the independent claims 66 and 82 lacks a structure limit, a size limit, and/or a length limit. The peptide is claimed by its function, i.e., by what it does than what it is structurally (i.e., by its SEQ ID number). As claimed in the instant claims, the only structural requirement of the claimed peptide is that it has to have the capacity to bind specifically or non-specifically, selectively or non-selectively to ManLAM binding antibodies or elicit production of anti-ManLAM antibodies. Furthermore, the limitation ‘vaccine’ in claims 82-90 represents the intended use of the peptide and has no patentable weight.

Pompejus *et al.* taught an amino acid molecule comprising the peptide VERWEKHT, which is 100% structurally identical to the VERWEKHT peptide present within the amino acid molecule, SEQ ID NO: 5 of the G3 peptide of the instant invention. The amino acid molecule is present in a supernatant and therefore contains an immunologically acceptable carrier. The prior art peptide comprises W or H internal aromatic amino acid residue and the W residue has the preceding hydrophilic R amino acid residue and the adjacent hydrophilic E amino acid residue. See the sequence alignment below; and Example 10 and the Sequence Listing.

APPLICANT: Kroger, Burkhard  
APPLICANT: Schoder, Hartwig  
APPLICANT: Zelder, Oskar  
APPLICANT: Haberhauer, Gregor  
TITLE OF INVENTION: CORYNEBACTERIUM GLUTAMICUM GENES ENCODING PROTEINS  
TITLE OF INVENTION: INVOLVED IN MEMBRANE SYNTHESIS AND MEMBRANE  
TITLE OF INVENTION: TRANSPORT  
FILE REFERENCE: BGI-125CPCN  
CURRENT APPLICATION NUMBER: US/10/627,476  
CURRENT FILING DATE: 2003-07-25  
PRIOR APPLICATION NUMBER: 09/602,787  
PRIOR FILING DATE: 2000-06-23  
PRIOR APPLICATION NUMBER: USSN 60/141031  
PRIOR FILING DATE: 1999-06-25  
NUMBER OF SEQ ID NOS: 678  
SEQ ID NO 30  
LENGTH: 568  
TYPE: PRT

Query Match 66.7%; Score 48; DB 3; Length 568;  
Best Local Similarity 100.0%; Pred. No. 20;  
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0.

Qy 2 VERWEKHT 9  
| | | | | | | |  
Db 348 VERWEKHT 355

Accordingly, the prior art amino acid molecule comprising the eight amino acid-long peptide sequence VERWEKHT, having 100% structural identity with amino acid residues 2-9 of SEQ ID NO: 5 of the instant invention, qualifies as an amino acid molecule comprising a peptide, or an immunologic or immunogenic modification of SEQ ID NO: 5, being capable of binding to ManLAM binding antibodies and/or capable of eliciting production of ManLAM-binding antibodies upon immunization in a subject, because the art recognizes that the smallest peptide that elicits antibodies which bind to the original full length protein is six amino acids in length. See first sentence under 'Size of the Peptide' on page 76 of Harlow *et al.* Since the prior art peptide is structurally identical to the instantly recited peptide, or an immunologic or immunogenic modification thereof, the prior art peptide is expected to necessarily have the same binding and/or immunogenic functions as that of the instant claimed peptide, such as, specific or non-specific binding to ManLAM antibodies, anti-ManLAM antibodies, and/or ManLAM monoclonal antibodies, but not to antibodies against non-mannosylated lipoglycans or to the 2H1 anti-glucuronoxylomannan mAb. 'Products of identical chemical composition can not have mutually exclusive properties.' A chemical composition and its properties are inseparable.

Therefore, if the prior art teaches the identical chemical structure, the properties Applicant recites and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Claims 66-76 and 82-90 are anticipated by Pompejus *et al.* Harlow *et al.* is **not** used as a secondary reference in combination with Pompejus *et al.*, but rather is used to show that every element of the claimed subject matter is disclosed by Pompejus *et al.* with the unrecited limitation(s) being inherent in view of what is known in the art as explained above. See *In re Samour* 197 USPQ 1 (CCPA 1978).

**15)** Claims 66-73, 75-77, 81-87 and 89-91 are rejected under 35 U.S.C. § 102(c)(2) as being anticipated by Doucette-Stamm *et al.* (US 6,699,703) as evidenced by Covacci *et al.* (WO 93/18150).

It is noted that 'a peptide' recited in the independent claims 66, 81 and 82 lacks a structure limit, a size limit, and/or a length limit. The peptide is claimed by its function, i.e., by what it does than what it is structurally (i.e., by its SEQ ID number). As claimed in the instant claims, the only structural requirement of the claimed peptide is that it has to have the capacity to bind specifically or non-specifically, selectively or non-selectively to ManLAM binding antibodies or elicit production of anti-ManLAM antibodies. The limitation in claim 81 'for diagnosing mycobacterial infection in a subject' occurs in the preamble and is not accorded any patentable weight.

Doucette-Stamm *et al.* taught an amino acid molecule, SEQ ID NO: 2934, comprising the peptide sequence MWYRH, which is 100% structurally identical to the last five amino acids of the B11 peptide, i.e., MWYRH peptide in the amino acid molecule, SEQ ID NO: 1 of the instant invention. A vaccine composition comprising the amino acid molecule and a pharmaceutically acceptable carrier and/or an adjuvant as well as a kit comprising the amino acid molecule are taught. The prior art peptide comprises W, Y or H internal aromatic amino acid residue. See the sequence alignment below; second full paragraph in column 10; fifth full paragraph in column 11; last full paragraph in column 5; third full paragraph in column 6; paragraph bridging columns 7 and 8; and paragraph bridging columns 8 and 9; first full paragraph in column 12; lines 23-45

in column 13; lines 25-45 in column 31; line 44 in column 38 through line 48 in column 41; lines 11-31 in column 43 and the Sequence Listing.

US-09-583-110-2934  
Sequence 2934, Application US/09583110  
Patent No. 6699703  
GENERAL INFORMATION:  
APPLICANT: Lynn Doucette-Stamm et al.  
TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus  
TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics  
FILE REFERENCE: PATH00-07A  
CURRENT APPLICATION NUMBER: US/09/583,110  
CURRENT FILING DATE: 2000-05-26  
PRIOR APPLICATION NUMBER: US 09/107,433  
PRIOR FILING DATE: 1998-06-30  
PRIOR APPLICATION NUMBER: US 60/085,131  
PRIOR FILING DATE: 1998-05-12  
PRIOR APPLICATION NUMBER: US 60/051,553  
PRIOR FILING DATE: 1997-07-02  
NUMBER OF SEQ ID NOS: 5322  
SEQ ID NO 2934  
LENGTH: 81  
TYPE: PRT  
ORGANISM: Streptococcus pneumoniae  
US-09-583-110-2934

Query Match 49.3%; Score 36; DB 2; Length 81;  
Best Local Similarity 100.0%; Pred. No. 3e+02;  
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0.

Qy 8 MWYRH 12  
| | | | |  
Db 1 MWYRH 5

Accordingly, the prior art amino acid molecule comprising the peptide sequence MWYRH, having 100% structural identity with amino acid residues 8-12 of SEQ ID NO: 1 of the instant invention, qualifies as an amino acid molecule comprising a peptide, or an immunologic or immunogenic modification of SEQ ID NO: 1, being capable of binding to ManLAM binding antibodies and/or capable of eliciting production of ManLAM-binding antibodies upon immunization in a subject, because the art recognizes that an epitope or antigenic determinant, such as the five amino acid-long peptide MWYRH, can comprise 3 or more, generally 5 amino acids, in a spatial conformation unique to the epitope. See paragraph bridging pages 14 and 15 of Covacci *et al.* Therefore, the prior art amino acid molecule comprising the MWYRH sequence intrinsically serves as an antigenic determinant or epitope. Since the prior art peptide is

structurally identical to the instantly recited peptide, or an immunologic or immunogenic modification thereof, the prior art peptide is expected to necessarily have the same binding and/or immunogenic functions as that of the instant claimed peptide, such as, specific or non-specific binding to ManLAM antibodies, anti-ManLAM antibodies, and/or ManLAM monoclonal antibodies, but not to antibodies against non-mannosylated lipoglycans or to the 2H1 anti-glucuronoxylomannan mAb. 'Products of identical chemical composition can not have mutually exclusive properties.' A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties Applicant recites and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Claims 66-73, 75-77, 81-87 and 89-91 are anticipated by Doucette-Stamm *et al.* Covacci *et al.* is **not** used as a secondary reference in combination with Doucette-Stamm *et al.*, but rather is used to show that every element of the claimed subject matter is disclosed by Doucette-Stamm *et al.* with the unrecited limitation(s) being inherent in view of what is known in the art as explained above. See *In re Samour* 197 USPQ 1 (CCPA 1978).

### **Rejection(s) under 35 U.S.C § 103**

**16)** The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 148 USPQ 459, that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or unobviousness.

**17)** Claim 81 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Pompejus *et al.* (US 7,273,721, filed 6/25/1999).

The limitation ‘for diagnosing mycobacterial infection in a subject’ occurs in the preamble and is not accorded any patentable weight.

The teachings of Pompejus *et al.* are explained above, which do not expressly disclose a kit comprising their amino acid molecule.

However, methods of assembling a kit using an art-disclosed product was well known and routinely practiced in the art at the time of the invention. Therefore, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to assemble a kit using the amino acid molecule of Pompejus *et al.* to produce the instant invention. Given the routine practice of producing kits using an art-known product, one of ordinary skill in the art would have been motivated to produce the instant invention for the expected benefit of making readily available Pompejus’s amino acid sequence molecule, or for commercializing Pompejus’s amino acid sequence molecule.

Claim 81 is *prima facie* obvious over the prior art of record.

### **Relevant Art**

**18)** The relevant art made of record and not currently relied upon in any of the rejections is considered pertinent to Applicants’ disclosure:

- Barenholz *et al.* (*J. Med. Microbiol.* 56: 579-586, 2007) show that an amino acid molecule comprising the peptide sequence VERWEKHT or MWYRH bind selectively to the anti-ManLAM monoclonal antibody CS40 and elicited antibodies that recognized ManLAM. See entire document including the abstract and Figure 1.

### **Claims Objection(s)**

**19)** Instant claims are objected to for the following reasons:

(a) Claim 66 is grammatically incorrect in the limitation ‘being capable binding’. See line 3.

(b) Instant claims are objected to for including unnecessary extra spaces between several limitations. See for example, line 2 of claims 77, 84 and 91; lines 1 and 5 of claim 81; line 5 of claim 82; line 1 of claims 68, 74 90; and line 4 of claim 66.

### Remarks

**20)** Claims 66-77 and 81-91 stand rejected.

**21)** Papers related to this application may be submitted to Group 1600, AU 1645 by facsimile transmission. Papers should be transmitted to the Office's Central Rightfax number 571-273-8300 via the PTO Fax Center, which receives transmissions 24 hours a day and 7 days a week.

**22)** Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAG or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.Mov>. Should you have questions on access to the Private PAA system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (in USA or CANADA) or 571-272-1000.

**23)** Any inquiry concerning this communication or earlier communications from the Examiner should be directed to S. Devi, Ph.D., whose telephone number is (571) 272-0854. A message may be left on the Examiner's voice mail system. The Examiner can normally be reached on Monday to Friday from 7.15 a.m. to 4.15 p.m. except one day each bi-week which would be disclosed on the Examiner's voice mail system.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Robert Mondesi, can be reached on (571) 272-0956.

/S. Devi/  
Primary Examiner  
AU 1645

September, 2009